

Amendments to the Claims:

✓ Please cancel claims 18-27 and 33-55 without prejudice.

The following lists all claims and their status:

1 – 27 (Cancelled)

28. (Currently amended): A process for forming a semiconductor device comprising a plurality of MOS transistors at predetermined regions of a silicon substrate, comprising:

implanting, ~~in the predetermined regions of the silicon substrate,~~ a chemical species, with an implantation energy between 2 and 15 keV, into the predetermined regions of the silicon substrate, wherein the chemical species ~~is comprises~~ Ar, Ne or He, and wherein the predetermined regions of the silicon substrate are exposed directly to the implantation source;

oxidizing the surface of the silicon substrate to form a gate oxide layer of ~~non~~ non-uniform thickness; and

E1 forming MOS transistors at the predetermined regions of the silicon substrate, wherein the oxidized layer at the predetermined regions forms the gate oxide layer of the MOS transistors.

29. (Currently amended): The process of claim 28, wherein implanting in the predetermined regions is an ion implantation step.

30. (Previously added): The process of claim 28, wherein the implanted dose is from 5×10^{13} to 5×10^{15} atoms/cm².

31. (Currently amended): The process of claim 28, wherein oxidizing the surface of the silicon substrate ~~growing a silicon oxide layer~~ comprises oxidation in a furnace, ~~by~~ plasma oxidation, electrochemical oxidation or rapid thermal oxidation.

32. (Currently amended): The process of claim 28, wherein oxidizing the surface of the silicon substrate~~growing the silicon oxide layer~~ comprises an oxidation step in a furnace at a temperature of at least 300°C and in an oxidizing atmosphere.

33 – 55 (Cancelled)